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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/730,707	12/08/2003	Toyoshi Umebayashi	ZUIKP0110US	4012

43076 7590 06/14/2007
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EXAMINER

MCNALLY, DANIEL

ART UNIT	PAPER NUMBER
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1733

MAIL DATE	DELIVERY MODE
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06/14/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/730,707

Applicant(s)

UMEBAYASHI ET AL.

Examiner

Daniel McNally

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 April 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 and 3-17 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 8,9,12,13,15 and 17 is/are allowed.
- 6) ☒ Claim(s) 1,3-7,10,11,14 and 16 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All * b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This Office action is in response to the Request for Continued Examination filed 4/13/2007.

Claim Rejections - 35 USC § 103

2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

3. Claims 1, 6, 10 and 11 rejected under 35 U.S.C. 103(a) as being unpatentable over Thorson et al. [US6979380] (newly cited) in view of Boothe et al. [US5716478] (of record, previously cited).

Thorson discloses a method of making an undergarment. The undergarment is made by longitudinally cutting a combination web to form front and rear body panels, as shown in Figure 2. As shown in Figures 3 and 5, the body panels (4,6) are spread apart and bridged by an absorbent pad and folded to produce the undergarment. Thorson discloses forming the combination web for the body panels by laminating two webs of material with elongated strands of elastic sandwiched between the two webs of material. Thorson discloses using adhesive to laminate the combination web with the elastic sandwiched inside the web (column 6, line 55 – column 7, line 22). Thorson further discloses the elastic is elongated and applied to a web of the material in the machine direction or "in a flow direction" of the web. Figure 3 shows the machine direction of the process (74) where the undergarment articles are flowed laterally through the process. Figure 5 shows the location of the elastic members (36) on the undergarment. Thorson discloses that the elastic members incorporated into the

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combination web can be non-continuous and intermittently spaced along the longitudinal direction of the body panel webs. One of ordinary skill in the art would have readily appreciated cutting the elastic to produce the non-continuous strips. Figure 5 shows the location of the non-continuous elastic strips at regions (18, 26) of the body panel webs. Regions (16, 24) show the crotch portions where the elastic strips are non-continuous. Thorson discloses applying the elastic to the web material. However, Thorson is silent as to changing the interval between two adjacent pieces of elastic.

Boothe discloses a method of applying elongated elastic parts to a web (column 4, lines 13-58). The method comprises varying the rotating speed of transfer segments while maintaining the elastic in an elongated state. Figure 1 shows the changing of the interval between two adjacent transfer segments applying the elastic parts.

It would have been obvious to one of ordinary skill in the art at the time of invention to apply the elastic of Thorson by varying the rotating speed of the transfer segments as taught by Boothe in order to precisely control the length and placement of the elastic onto the moving web.

With regard to claim 6, the combined teachings of Thorson and Boothe are discussed above. In addition to the above teachings, Thorson shows in Figure 2 the cutting of the combined web material. Thorson also shows in Figure 3 the spacing apart of the cut web material and the bridging of the separated pieces using an absorbent pad.

With regard to claim 10, in addition to the teachings above Thorson teaches applying elastic parts to both sides of the web material as shown in Figure 5. Therefore Thorson requires applying at least a first and second elastic member.

With regard to claim 11, Thorson shows in Figure 3 the placing of an absorbent pad.

4. Claims 3 and 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Thorson and Boothe and further in view of Van Vliet [US4297157] (of record, previously cited).

Thorson as modified discloses a lateral process or making an undergarment. The applicant is referred to paragraph 3 above for a detailed discussion of Thorson as modified. Thorson discloses using adhesive to attach the two laminate layers of the body panels with the elastic and adhesive between the layers. However Thorson is silent as to how the adhesive is applied.

Van Vliet discloses a method of applying discrete elastic pieces to an article. Van Vliet teaches using an adhesive applicator to apply adhesive to the elastic substance or to areas of the web sheet to bond the elastic to the web sheet (column 4, lines 46-50 and 64-66).

It would have been obvious to one of ordinary skill in the art at the time of invention to apply the adhesive of Thorson as taught by Van Vliet to either one of the elastic or the web in order to create a temporary bond that will hold the elastic in place.

5. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Thorson and Boothe and further in view of Frick [US3629039] (of record, previously cited).

Thorson as modified discloses a lateral process or making an undergarment. The applicant is referred to paragraph 3 above for a detailed discussion of Thorson as modified. Thorson and Boothe do not disclose passing the sandwich of first web, second web and elastic between an embossing roll and an anvil roll.

Frick discloses a method of forming diapers. Frick teaches the bonding of a cover sheet and backing sheet by embossing, heating sealing or the like (column 1, lines 8-11). The use of embossing and anvil rolls to bond layers of an article was well known at the time of invention.

It would have been obvious to one of ordinary skill in the art at the time of invention to include in Thorson's process the use of an embossing and an anvil roll as taught by Frick in order to bond the cover sheet to the backing sheet.

6. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Thorson and Boothe and further in view of Heller et al. [US2002/0148557] (of record).

Thorson as modified discloses a lateral process or making an undergarment. The applicant is referred to paragraph 3 above for a detailed discussion of Thorson as modified. Thorson and Boothe do not disclose trimming a leg hole.

Heller discloses a method of making a personal absorbent article. Heller teaches a step of cutting a leg hole using a rotary die cutter. Heller discloses removal of the leg cut-outs between the webs (26,28), see Figure 1, segment "F1."

It would have been obvious to one of ordinary skill in the art at the time of invention to modify Thorson's process by including a step of trimming a leg hole as taught by Heller in order to make a more comfortable crotch portion for the article.

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7. Claims 14 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Thorson and Boothe and further in view of Schmitz [US6544375] (of record, previously cited).

Thorson as modified discloses a lateral process or making an undergarment. The applicant is referred to paragraph 3 above for a detailed discussion of Thorson as modified. Thorson and Boothe do not disclose rotating the pieces about the same radius during the changing step.

Schmitz discloses a method of making a diaper comprising the steps of applying elastic bands to a web (paragraphs 0001, 0002 and 0018). Figure 1 shows the elastic bands are rotated around a path having an equal radius.

It would have been obvious to one of ordinary skill in the art at the time of invention to modify the elastic transfer method of the references used in paragraph 3 above by using an elastic transfer path of equal radius as taught by Schmitz in order to apply discrete elastic parts to a web where the elastic parts are unequally spaced apart.

Allowable Subject Matter

8. Claims 8, 9, 12, 13, 15 and 17 are allowed.

9. The following is an examiner's statement of reasons for allowance: Claim 8 requires a lateral flow process where first and second elastics are applied in the direction of flow of a first web and a second and third web are applied to the first and second elastics respectively to sandwich the elastics between the first web and the second or third web. The prior art of record does not show all of the above requirements. The closest prior art of record Shimoe [US2001/0025165] discloses a

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method where first and second elastics are applied to a first web and second and third webs are applied to sandwich the first and second elastics. However, Shimoe's process flows in a longitudinal direction rather than in a lateral direction.

Response to Arguments

10. Applicant's arguments with respect to claims 1,3-5,10,11,14 and 16 have been considered but are moot in view of the new ground(s) of rejection.

New grounds of rejection have been made for Claims 1,3-7,10,11,14, and 16 in view of newly cited Thorson et al. [US6979380]. Thorson shows a lateral flow process for producing an undergarment where the elastic members are applied in the flow direction of the web.

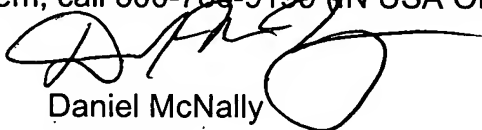
Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Daniel McNally whose telephone number is (571) 272-2685. The examiner can normally be reached on Monday - Friday 8:00AM-4:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Crispino can be reached on (571) 272-1226. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Daniel McNally
Examiner
Art Unit 1733



JEFF H. AFTERGUT
PRIMARY EXAMINER
GROUP 1300

/DPM/
June 6, 2007